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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/723,632	11/26/2003	Frank Gersemsky	L&L-I0261	9708

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EXAMINER	
NGUYEN, KHAI MINH	

ART UNIT	PAPER NUMBER
2617	

DATE MAILED: 10/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/723,632	GERSEMSKY ET AL.	
	Examiner	Art Unit	
	Khai M. Nguyen	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *09 August 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-33* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-11, 13-25, and 27-33* is/are rejected.

7)☒ Claim(s) *12 and 26* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-33 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-11, 13-25, and 27-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Burgess et al. (U.S.Pat-6532228) in view of Dent et al. (U.S.Pat-6490261).

Regarding claim 1, Burgess teaches data transmission system (fig.1), comprising:

a base station (fig.1, master unit 4);

at least one mobile station (fig.1, slave units 6, 8 and 10), data packets can be transmitted by radio using a time slot method between said base station and said mobile station (fig.1-2, col.2, line 66 to col.3, line 32, the transceiver units are synchronised to a common time frame determined by the master unit);

Burgess fails to specifically disclose first means for transmitting a first part of a data packet at a predetermined first symbol rate and at a first transmission frequency;

and second means for transmitting a second part of the data packet at a second symbol rate, and at a second transmission frequency, and said second symbol rate differing from said predetermined first symbol rate. However, Dent teaches first means for transmitting a first part of a data packet at a predetermined first symbol rate (fig.1, data mobile 1) and at a first transmission frequency (fig.1, data mobile 1, abstract); and second means for transmitting a second part of the data packet at a second symbol rate (fig.1, data mobile 2), and at a second transmission frequency (fig.1, data mobile 2, abstract), and said second symbol rate differing from said predetermined first symbol rate (fig.1, data mobile 1 and data mobile 2, abstract, col.3, lines 14-37). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to apply the teaching of Dent to Burgess to provide a method and system that uses slot transmissions using phased arrays.

Regarding claim 2, Burgess and Dent further teach the data transmission system according to claim 1, wherein the first part of the data packet contains information about the second symbol rate (see Dent, fig.1, abstract).

Regarding claims 3, and 33, Burgess and Dent further teach the data transmission system according to claims 1 and 32, further comprising third means for producing a guard time interval between the first part and the second part of the data packet (see Dent, fig.1, S1, S2 and S3, col.5, line 57 to col.6, line 16).

Regarding claims 4, and 18, Burgess and Dent further teach the data transmission system according to claims 1 and 15, wherein the second symbol rate is

higher than the predetermined first symbol rate (see Burgess, fig.1-2, frequency f1 and f2, col.2, line 66 to col.3, line 32, the transceiver units are synchronised to a common time frame determined by the master unit, see Dent, abstract).

Regarding claims 5, and 19, Burgess and Dent further teach the data transmission system according to claim 1, and 15, wherein each said base station and mobile station each have a local oscillator (see Burgess fig.4-5, col.1, lines 29-49).

Regarding claims 6, and 20, Burgess and Dent further teach the data transmission system according to claim 1, and 19, wherein each said local oscillator is in each case connected to a phase locked loop (see Burgess, fig.4-5, col.1, lines 29-49).

Regarding claims 7, and 21, Burgess and Dent further teach the data transmission system according to claim 1, and 15, wherein each said base station and mobile station each have a filter for reception-end selection of a transmission frequency (see Burgess, fig.4-5, col.1, lines 29-49).

Regarding claim 8, Burgess and Dent further teach the data transmission system according to claim 1, wherein said first means has means for producing identification information for identification of an association between said base station and said mobile station (see Burgess, fig.1-3, frequency f1, f2, col.3, line 61 to col.4, line 46).

Regarding claim 9, Burgess and Dent further teach the data transmission system according to claim 1, wherein said first means has means for producing a first data packet head (see Burgess, fig.1-3, frequency f1, f2, col.3, line 61 to col.4, line 46).

Regarding claim 10, Burgess and Dent further teach the data transmission system according to claim 1, wherein said second means has means for producing a synchronization word for synchronization of said base station to said mobile station at the second symbol rate (see Burgess, fig.1-2, frequency f1 and f2, col.2, line 66 to col.3, line 32, the transceiver units are synchronised to a common time frame determined by the master unit).

Regarding claim 11 and 25, Burgess and Dent further teach the data transmission system according to claims 1 and 15, wherein the second means has means for producing a second data packet head, and means for transmitting payload data (see Burgess, fig.2-3, payload 38, col.3, line 48 to col.4, line 25), and transmitting a second data packet header and payload data in the second part of the data packet (see Burgess, fig.2-3, payload 38, col.3, line 48 to col.4, line 25).

Regarding claim 13, Burgess and Dent further teach the data transmission system according to claim 1, wherein the data transmission system can be used in digital cordless communications systems (see Burgess, fig.1-2, frequency f1 and f2, col.2, line 66 to col.3, line 32, see Dent, see Dent, col.1, lines 34-52), in computer-controlled entertainment systems, computer-controlled games systems, or in systems with real-time requirements (see Burgess, fig.1-2, frequency f1 and f2, col.2, line 66 to col.3, line 32).

Regarding claim 14, Burgess and Dent further teach the data transmission system according to claim 1, wherein the first part of the data packet contains information about the second transmission frequency (see Dent, col.2, lines 41-59).

Regarding claim 15, Burgess teaches a method for radio transmission of data packets between a base station and at least one mobile station (fig.1, Master unit 4, slave units 6, 8 and 10, col.2, line 66 to col.3, line 32, the transceiver units are synchronised to a common time frame determined by the master unit), which comprises the steps of:

Burgess fails to specifically disclose transmitting a first part of a data packet at a predetermined first symbol rate and at a first transmission frequency; and transmitting a second part of the data packet at a second symbol rate and at a second transmission frequency, and said second symbol rate differing from said predetermined first symbol rate. However, Dent teaches transmitting a first part of a data packet at a predetermined first symbol rate (fig.1, data mobile 1) and at a first transmission frequency (fig.1, data mobile 1, abstract); and transmitting a second part of the data packet at a second symbol rate (fig.1, data mobile 2) and at a second transmission frequency (fig.1, data mobile 2, abstract), and said second symbol rate differing from said predetermined first symbol rate (fig.1, data mobile 1 and data mobile 2, abstract, col.3, lines 14-37). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to apply the teaching of Dent to Burgess to provide a method and system that uses slot transmissions using phased arrays.

Regarding claim 16, Burgess and Dent further teach the method according to claim 15, which further comprises transmitting information about the second symbol rate with the first part of the data packet (see Dent, col.2, lines 41-59).

Regarding claim 17, Burgess and Dent further teach the method according to claim 15, which further comprises complying with a guard time interval before transmitting the second part of the data packet (see Dent, fig.1, S1, S2 and S3, col.5, line 57 to col.6, line 16).

Regarding claim 22, Burgess and Dent further teach the method according to claim 15, which further comprises transmitting in the first part of the data packet identification information for identifying an association between the base station and the mobile station (see Burgess, fig.1-3, frequency f1, f2, col.3, line 61 to col.4, line 46).

Regarding claim 23, Burgess and Dent further teach the method according to claim 15, which further comprises transmitting a first data packet header in the first part of the data packet (see Burgess, fig.1-3, frequency f1, header 36, col.3, line 61 to col.4, line 46).

Regarding claim 24, Burgess and Dent further teach the method according to claim 15, which further comprises transferring a synchronization word, for synchronization of the base station to the at least one mobile station (see Burgess, fig.1-2, frequency f1 and f2, col.2, line 66 to col.3, line 32, the transceiver units are synchronised to a common time frame determined by the master unit), to the second

symbol rate at a start of the second part of the data packet (see Dent, fig.1, data mobile1 and data mobile 2, abstract).

Regarding claim 27, Burgess and Dent further teach the method according to claim 15, which further comprises forming the base station and the mobile station as a digital cordless communications system (see Burgess, fig.1-2, frequency f1 and f2, col.2, line 66 to col.3, line 32, the transceiver units are synchronised to a common time frame determined by the master unit).

Regarding claim 28, Burgess and Dent further teach the method according to claim 15, which further comprises forming the base station and the mobile station as a computer-controlled entertainment system (see Burgess, fig.1-2, frequency f1 and f2, col.2, line 66 to col.3, line 32, the transceiver units are synchronised to a common time frame determined by the master unit).

Regarding claim 29, Burgess and Dent further teach the method according to claim 15, which further comprises forming the base station and the mobile station as a computer-controlled game system (see Burgess, fig.1-2, frequency f1 and f2, col.2, line 66 to col.3, line 32, the transceiver units are synchronised to a common time frame determined by the master unit).

Regarding claim 30, Burgess and Dent further teach the method according to claim 15, which further comprises forming the base station and the mobile station as a system with real-time requirements (see Burgess, fig.1-2, frequency f1 and f2, col.2, line

66 to col.3, line 32, the transceiver units are synchronised to a common time frame determined by the master unit).

Regarding claim 31, Burgess and Dent further teach the method according to claim 15, which further comprises transmitting information about the second transmission frequency with the first part of the data packet (see Dent, col.2, lines 41-59).

Regarding claim 32, Burgess teaches a data transmission system (fig.1), comprising:

a base station (fig.1, master 4); and

at least one mobile station (fig.1, slave 6, 8 and 10), data packets can be transmitted by radio using a time slot method between said base station and said mobile station (see Burgess, fig.1-2, frequency f1 and f2, col.2, line 66 to col.3, line 32, the transceiver units are synchronised to a common time frame determined by the master unit);

Burgess fails to specifically disclose first base station and said mobile station programmed to transmit a first part of a data packet at a predetermined first symbol rate and at a first transmission frequency; second base station and said mobile station programmed to transmit a second part of the data packet at a second symbol rate and at a second transmission frequency, and said second symbol rate differing from said predetermined first symbol rate. However, Dent teaches base station (fig.1) and said mobile station (fig.1) programmed to transmit a first part of a data packet at a

predetermined first symbol rate (fig.1, data mobile 1) and at a first transmission frequency (fig.1, data mobile 1, abstract); second base station and said mobile station programmed to transmit a second part of the data packet at a second symbol rate (fig.1, data mobile 2, abstract) and at a second transmission frequency (fig.1, data mobile 2, abstract), and said second symbol rate differing from said predetermined first symbol rate (fig.1, data mobile 1 and data mobile 2, abstract, col.3, lines 14-37). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to apply the teaching of Dent to Burgess to provide a method and system that uses slot transmissions using phased arrays.

Allowable Subject Matter

3. Claims 12 and 26 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Khai M. Nguyen whose telephone number is 571.272.7923. The examiner can normally be reached on 8:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, George Eng can be reached on 571.272.7495. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Khai Nguyen
Au: 2617

10/8/2006

GEORGE ENG
SUPERVISORY PATENT EXAMINER